Smart Teachable cognitive Agents for in - house care giving to the elderly people

Abstract:

The proposed system presents a framework for implementing a system based on smart components that interact with the user to realize the entire system. In this system, the intelligent agents are treating as teachable components that make up the system to be built. Each agent has pre built operations and serves various functionalities. Each agent interacts with the user/care takers or with other agents to transform its own operations and to make relationship with others. The system can be taught by instructions to make interaction with the user in the context. The learner can make Inferences, clarifications, predictions and guesses which are the issues in collaborative design of the system according to the instructor intention. This system provide a framework for developing interactive system which allow the caretaker and novice users to be involved in the implementation process by teaching / instructing each units of the system. A teachable component is a domain specific object which may interact directly with the environment. It may sense and take actions autonomously in the environment. The component can acquire new behaviors by revamping the structure according to the user interactive dialogs. The computational agents initially built with routine daily task of an elderly people. Few agents collect information from virtual environment and make beliefs about the activity of daily living of the subject. The other agents are taking care of the subject's health including physical and mental activities and communicate with the user using voice interaction. The novel method of the proposed approach includes ability of teaching and learning features in the domains of agents like human in virtual environment and for in-house care giving for elderly people.